

Is there a usage-based charge? No \_\_\_\_\_ Yes ✓

If yes, how much is the charge? \_\_\_\_\_

Is there a distance component (such as a per-mile fee) of the charge?

No \_\_\_\_\_ Yes \_\_\_\_\_

If yes, how much is the charge? \_\_\_\_\_

Was there an installation fee? No \_\_\_\_\_ Yes \_\_\_\_\_

If yes, how much is the charge? \_\_\_\_\_

NA

Is the charge the regular tariffed rate, or is there a discount from the telecommunications provider? Tariffed \_\_\_\_\_ Discount \_\_\_\_\_

If there is a discount, how much is it? \_\_\_\_\_

7. How does the project use telecommunications in the delivery of health care? (For example -- to send x-rays, distribute public health information, or perform video consultations. Please identify any occasional or episodic uses, such as might result from an outbreak of disease.)

1. Dx & Consultation - Video consultations  
Radiology, Pathology & Dermatology
2. E-mail - Consults w/ HAWAII Phys & Centers
3. Distance Learning (incl. CE)
4. Access NLM, Med. references & search services
5. Internet Access
6. Recruitment - A.S. is "medically underserved" by DHHS guidelines

8. Could the project provide the services it is <sup>proposed</sup> currently providing with less bandwidth? What effect would a lesser level of bandwidth have? (The implications of using greater or lesser levels of telecommunications services are related to image transmission time. What would be the impact if the health care activities for which you now use telecommunications took twice as long, or if they could be completed in half the time?)

- Need is for fully interactive video transmission for dx & consultation
- Digital transmission of x-rays need to be of diagnostic quality - high quality images for dermatology
- distance learning programs will benefit from wide band capabilities

9. What would the implications of having a greater level of bandwidth be?

Urgent need to improve skills & knowledge of medical & nursing staff. interactive video training and transmission of hi quality images will enhance:

- ① diagnosis & treatment consults
- ② distance learning programs.

10. Do you have e-mail? No \_\_\_\_\_ Yes ✓ beg Jan 97.

11. Do you have Internet access? No \_\_\_\_\_ Yes ✓ beg Jan 97

If yes, do you incur long-distance charges by using it?

No \_\_\_\_\_ Yes \_\_\_\_\_

Please estimate your number of hours of internet use per month:

> 50 hours.

12. If you have access to the Internet, please list any purposes other than e-mail (such as accessing databases such as Lexis/Nexis)? for which you use it:

- access -
1. Natl Library of Medicine & med. databases
  2. federal bulletin boards incl. DHHS, Rural Health, US Congress - federal register +
  3. procurement searches
  4. Supplier/repair searches.
  5. Recruitment - specialty staffing
- Plus + + +



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**NORTH MISSISSIPPI  
HEALTH SERVICES****7th January 1997****Orrin E. Cameron III  
Rural Utilities Service  
Washington, D.C. 20250-1500****Dear Sir:**

**This is our TELEMEDICINE USER SURVEY for the Support of Rural Telemedicine for the Federal Communications Commission Inquiry. Sorry for the delay, but the holidays made it impossible to complete, as several key people were on vacation over what is traditionally a low activity time for hospitals. Hope this meets your needs. If you have any questions or need any additional information, please call one of the two people listed below and we will promptly supply service.**

**Technical information: Mac Stanford  
Director, Biomed Department  
North Mississippi Medical Center  
(601) 841-3265**

**Program information: Char Jockman  
Grant Administrator  
North Mississippi Health Services, Inc. (same entity)  
(601) 791-2194**

*fax & hardcopy to:*  
*Mr. Orren E. Cameron*  
*1-202-720-4099*

## TELEMEDICINE USER SURVEY

## 1. Name of project:

Biomed Distance Learning Telemedicine ProjectNorth Mississippi Medical Center / Health Services, Inc.  
Tupelo, MS 38802

## 2. Please list each of the project's sites:

Name of Site:

State in which it is located:

<u>North Mississippi Medical Center</u>	<u>Mississippi</u>
<u>Iuka Hospital</u>	<u>Mississippi</u>
<u>Webster General Hospital</u>	<u>Mississippi</u>
<u>Clay County Medical Center</u>	<u>Mississippi</u>
<u>Pontotoc Hospital</u>	<u>Mississippi</u>
<u>Ackerman Family Medical Clinic (FMC)</u>	<u>Mississippi</u>
<u>Baldwyn FMC</u>	<u>Mississippi</u>
<u>Chickasaw FMC</u>	<u>Mississippi</u>
<u>Ecru FMC</u>	<u>Mississippi</u>
<u>Eupora FMC</u>	<u>Mississippi</u>
<u>Fulton FMC</u>	<u>Mississippi</u>
<u>Golden FMC</u>	<u>Mississippi</u>
<u>Hamilton FMC</u>	<u>Alabama</u>
<u>Hickory Flat FMC</u>	<u>Mississippi</u>
<u>Lowndes FMC</u>	<u>Mississippi</u>
<u>New Albany FMC</u>	<u>Mississippi</u>
<u>Okalona FMC</u>	<u>Mississippi</u>
<u>Saltillo FMC</u>	<u>Mississippi</u>
<u>Sulligent FMC</u>	<u>Alabama</u>
<u>Tupelo Family Medical Residency Center</u>	<u>Mississippi</u>
<u>Vernon FMC</u>	<u>Alabama</u>
<u>West Point Children's Clinic</u>	<u>Mississippi</u>

Please answer the following questions for each of your sites. Use additional sheets if necessary.

3. What is the nearest city of population equal to or greater than 50,000 in your state, and approximately how far are you from its boundary?

City: Jackson, Mississippi Distance from city boundary: (listed by site)

Site Name	Distance
North Mississippi Medical Center	170
Iuka Hospital	215
Webster General Hospital	96
Pontotoc Hospital	146
Ackerman FMC	80
Baldwyn FMC	188
Chickasaw FMC	121
Ecu FMC	172
Eupora FMC	96
Fulton FMC	190
Golden FMC	210
Hickory Flat FMC	199
Lowndes FMC	147
New Albany FMC	181
Okolona FMC	141
Saltillo FMC	180
Tupelo FMC	170
West Point Children's Clinic	142

\*these figures provided by the Mississippi Department of Transportation

City: Birmingham, Alabama Distance from city boundary: (listed by site)

Hamilton FMC	90
Sulligent FMC	102
Vernon FMC	90

\*these figures drawn from official maps of Alabama

4. Name of the project's telecommunications service provider:

Bell South

5. Level of telecommunications service the project is currently using: (For example: voice grade, 144 Kbps (ISDN), 384 Kbps, T-1 or equivalent, or higher rate)

T-1 lines

**6. Charges for telecommunications service:**

Is there a monthly charge? No \_\_\_\_\_ Yes X

If yes, how much is the charge? \$718 to \$1,738 per month per circuit based on distance  
(ie. Tupelo- Eupora \$740 and Tupelo-Iuka \$1470)

Is there a usage-based charge? No X Yes \_\_\_\_\_

If yes, how much is the charge? \_\_\_\_\_

Is there a distance component (such as a per-mile fee) of the charge?

No \_\_\_\_\_ Yes X

If yes, how much is the charge? The average cost of mileage is \$24 per mile. Our per-mile fee paid is \$15 per mile.

Was there an installation fee? No \_\_\_\_\_ Yes X

If yes, how much is the charge? \$1,300 per site

Is the charge the regular tariffed rate, or is there a discount from the telecommunications provider? Tariffed \_\_\_\_\_ Discount X

If there is a discount, how much is it? 32%

**7. How does the project use telecommunications in the delivery of health care? (For example-- to send x-rays, distribute public health information, or perform video consultations. Please identify any occasional or episodic uses, such as might result from an outbreak of disease.)**

This project addresses video consultation and health education. Other uses currently in place are teleradiology and transmission of cardiology information. Main usage is transmittal of patient data and medical information. Administrative data, training and education of healthcare professionals including the continuing medical education of isolated rural physicians is available through the project. Public health uses will include specific outreach education and seminars where patients or family members can ask questions and get direct physician responses as well as individual to physician consultation and physician to physician specialist or alternate health provider. Shared education efforts with the community colleges and the state school interactive classroom are in pilot stage and will allow the state-wide teaching of some high school classes by physicians and health care providers.

**8. Could the project provide the services it is currently providing with less bandwidth? What effect would a lesser level of bandwidth have? (The implications of using greater or lesser of levels of telecommunications services are related to image transmission time. What would be the impact if the health care activities for which you now use telecommunications took twice as long, or if they could be completed in half the time?)**

The transmission of any image is proportional to the application. Transmission of a radiological image for a patient with a bone spur can take days and not effect the treatment or medical outcome. But, speedy, quality transmission of a radiological image for an automobile accident victim can be critical to his survival and any delay can result in an undesirable medical outcome. A lesser bandwidth would not be acceptable for quality healthcare provision.

9. What would the implications of having a greater level of bandwidth be?

More applications and services can be provided. Several sessions could be effectively conducted simultaneously, avoiding access problems. Greater quality of service provided by the greater level of bandwidth, translates to greater acceptance by users, less delays and difficulties and more effective use by physicians and patients.

10. Do you have e-mail? No \_\_\_\_\_ Yes X

11. Do you have Internet access? No \_\_\_\_\_ Yes X

If yes, do you incur long-distance charges by using it?

No X Yes \_\_\_\_\_

Please estimate your number of hours of internet use per month:

With less than a dozen persons already connected, we are using 12 - 16 hours per day. As the entire network of 400 -500 eligible users is connected during the project, we expect an explosion of hours. Some users will use few hours, others many, so the final equation is unknown. Rough estimation without added hours generated by upgrades or new services is 160,000 hours per month as each entity within the system has differing information needs and service needs. In the three months of trial phase since the fire wall was installed for safety of patient information, privacy, and security, there have been over 27,000 web page requests and over 4600 e-mails in and out of the system. This does not include in-house e-mails.

12. If you have access to the Internet, please list any purposes other than e-mail (such as accessing databases such as Lexis/Nexis) for which you use it:

Access phone billing from AT&T. Access to Ecu, MS and other information providers providers particular to health care needs. General access for government and private databases concerning population and new health care statistics. Access to vendor information for purchasing decisions. Access to medical research, software upgrades to systems and special access to the University of Mississippi Medical Center and library.